

Remarks/Arguments

Claims 18 and 21-25 remain pending in the Application. Re-examination and reconsideration is requested.

Claim 18 has been amended to recite “A method for forming a trim panel consisting of:

- a. supplying a cloth having a backside;
- b. coating said backside with a liquid polyurethane dispersion to form a relatively smooth gauged backing layer thickness of about 2.6 – 51.3 mm and drying said backing layer;
- c. forming a molded plastic substrate using the injection molding process on said backing layer wherein said backing layer does not allow strike-through of the cloth by said injection molded plastic substrate.
- d. incorporating said cloth including said molded plastic substrate into a vehicle as a trim cover wherein said trim cover has an air flow permeability of at least 38 ft³/min/ft².

Support may be found at page 7 line 17 to page 8 line 19 which recites in part “[i]n the present invention, roll or sheet goods of woven or knitted cloth are provided to an apparatus for back coating.” “The frother provides a stable froth which may be dispersed onto the backside of the cloth and the cloth drawn under a doctor blade, knife or other device to apply a smooth gauged layer of frothed dispersion (foam) onto the cloth.” “The cloth with a frothed polyurethane dispersion back-coating is next exposed to a heat source, such as an infrared oven, a convection oven or heating plates to dry the dispersion, evaporating any solvent or water present. The coated cloth may now be used in the “cut-and-sew”, “foam-in-place”, “vacuum

form” and “shoot behind” (injection molding) downstream processes to prepare trim panels described herein.”

In addition, the feature that the backing layer has a thickness of about 2.6 – 51.3 mm was the subject matter of now cancelled claim 24. Finally, the feature of having an air flow permeability of at least $38 \text{ ft}^3/\text{min}/\text{ft}^2$ is fully disclosed at page 9, lines 10-24 of the specification. No new matter has been entered.

Claims 18 and 21-24 are rejected under 35 U.S.C. § 103(a) as obvious over Hus, et al., (USP 6,926,856) in view of Applicant’s Admitted Prior Art (APA).

Hus et al. appears to be directed at a fabric-laminated plastic part where the fabric edges are covered with a second plastic component that adheres both to the fabric and to the first plastic material. A first plastic substrate component is prepared with an adhered fabric surface area and then the edges of the fabric are overlapped by a second molded-on, plastic edge-covering component. As the Examiner admits at page 3 of the Office Action mailed February 12, 2007, Hus et al. (‘856) does not specifically teach a polyurethane dispersion for preparing said polyurethane foam.. Hus et al., in fact, details that “[b]onding of the backing material to the fabric can be achieved by flame lamination, adhesive bonding, electromagnetic radiation bonding, or thermally initiated adhesive such as Dow Adhesive Film.” (See ‘856 at column 7 lines 36-39.) Thus, coating the backside of a cloth with a liquid **polyurethane dispersion** to form a backing layer is not contemplated nor considered as a viable alternative. Hus et al. only contemplates the use of separately formed backing materials thermally or mechanically adhered to a cloth and not a backing layer formed directly thereupon. The Admitted Prior Art (page 2 lines 17-24) describes the application of a polyurethane dispersion to form a carpet backing. In the present invention it is described how such a backing layer may be applied to a cloth to allow the injection molding of a plastic substrate therebehind without strikethrough and the

claim has been amended to exclude use as a carpet backing with a focus on a process for providing a trim panel.

For the reasons cited above, dependent claims 21-23 and 25 are also believed to be distinguished over Hus et al.

Claims 18 and 21-24 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Gribble, et al. (United States Patent Application Publication No. 2004/0109992) in view of Applicant's Admitted Prior Art (APA) and in further view of Hus et al. Hus, et al. is discussed above, and does not teach coating the backside of a cloth with a liquid **polyurethane dispersion** to form a backing layer and the associated process of forming a trim panel with the indicated air permeability.

Gribble, et al. does not teach forming a molded plastic substrate using the injection molding process on a polyurethane dispersion backing layer. Gribble, et al. simply recites "a substrate", but defines such as the surface to which the frothed dispersion is directly applied, in other words a construction having only 2 layers foam and cloth). (See Abstract and paragraphs [0001] and [0008] of Gribble, et al.) As the Examiner admits at page 5 of the office action mailed February 27, 2007, Gribble, et al. in view of APA does not teach injection molding a plastic layer on to said foam backed fabric.

Dependent claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hus, et al. in view of Applicant's Admitted Art (APA) and in further view of EP 0 361 856. Applicants incorporate by reference the remarks above regarding the distinctions for amended independent claim 18.

EP 0 361 856 appears to be directed at a knitted fabric suitable for covering vehicle seats. The reference is silent as to the use of a polyurethane dispersion as a backing layer for preventing strikethrough. All of the other references have been discussed above and the combination does not make up for the deficiencies of the primary reference.

Dependent claim 25 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Gribble, et al. (United States Patent Application Publication No. 2004/0109992) in view of Applicant's Admitted Prior Art (APA) in further view of Hus, et al. and EP 0 361 856. Applicants again incorporate by reference the remarks above as applied to independent claim 18. All of these references have been discussed above and the combination does not make up for the deficiencies of the primary reference.

Applicants also note that Gribble does make passing reference to foam backed material in an automotive application. However, Gribble does not teach or suggest how to provide a foam backed material from a cloth, including a liquid polyurethane dispersion, at the indicated thickness, and with the indicated air permeability.

In consideration of the amendments to the claims and the remarks hereinabove, Applicants respectfully submit that all claims currently pending in the Application are believed to be in condition for allowance. Allowance at an early date is respectfully solicited.

In the event the Examiner deems personal contact is necessary, please contact the undersigned attorney at (603) 668-6560.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,

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